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ABSTRACT

The Self-Description Questionnaire-II (SDQ-II) was used to assess the self-concept of 148 very talented students during an intensive summer academic program. The domain of Physical Abilities was the only area in which students' mean scale scores were below the mean. In fact, a significant number of students (approximately one-third) scored two standard deviations below the mean in perceptions of Physical Abilities. Other areas which had a relatively high rate of students scoring below two standard deviations below the mean included Opposite-sex Relations and Emotional Stability. Females rated their self-concepts in Physical Appearance and General School significantly higher than males, and males rated their self-concept in Honesty-trustworthiness higher than females. Implications for programing are discussed. (Author)

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The Self-concept of Talented Adolescents in an Intensive Summer Program: Implications for Programming

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Abstract

The Self-Description Questionnaire-II (SDQ-II) was used to assess the self-concept of 148 very talented students during an intensive summer academic program. The domain of Physical Abilities was the only area in which students' mean scale scores were below the mean. In fact, a significant number of students (approximately one-third) scored two standard deviations below the mean in perceptions of Physical Abilities. Other areas which had a relatively high rate of students scoring below two standard deviations below the mean included Opposite-sex Relations and Emotional Stability. Females rated their self concepts in Physical Appearance and General School significantly higher than males, and males rated their self concept in Honesty-trustworthiness higher than females. Implications for programming are discussed.

The Self-concept of Talented Adolescents in an Intensive Summer Program: Implications for Programming

Although there are many studies on the emotional experiences of adolescents in general as reflected in the self-concept (e.g., Marsh, Parker, & Barnes, 1985; Marx & Winne, 1978) and gifted adolescents in particular (e.g., Hansen & Hall, 1985; Hollinger, 1985; Janos, Fung, & Robinson, 1985; Olszewski, Kulieke, & Willis, 1987), little is available relating these findings to the practical aspects of program design. Within these studies, the self concept is treated as a multidimensional construct including appraisals of social, academic, physical, and athletic abilities, among others. What does self-concept, as indicated by these dimensions, mean in a practical sense within the context of an educational program?

In this study, we will examine the various facets of the self-concept in a sample of academically very talented students attending the Duke University Talent Identification Program. Implications for programming will be drawn from the portrait of these students constructed from their self-concept profiles.

Method

Subjects. Participants in this study were drawn from the Talent Search of the Duke University Talent Identification Program (TIP). Through this Talent Search, which covers a 16 state region in the southeastern and midwestern United States, seventh graders who score in the top three percent on their in-school standardized achievement tests are invited to take the Scholastic Aptitude Test (SAT) or American College Test (ACT). Approximately six percent of the students taking the SAT or ACT

subsequently qualify for the Summer Residential Program (SRP) at TIP, an intensive three-week scholastic program held on the Duke University campus. Eligible students may return to the SRP until they are rising high school juniors.

The SRP provides intense educational and social experiences to those students participating. Each student takes one class during a three-week session (two sessions are available each session, although most students only attend one), which may cover one year of work in standard schools. In addition to the high level of academic rigor found in the course offerings, students are provided with a wide variety of dorm-based programming (e.g., lectures, trips) and social and recreational activities. For many students, this is the first extended trip away from home and family and represents the opportunity to learn responsibility, study skills, and social interaction skills.

A subset of the students (n= 148) who took part in Term I or Term II of the Summer Residential Program of TIP during the summer of 1991 served as the subjects of this study. Only students who took part in the local campus offerings were included; those at other sites (e.g., international campuses) were not included. Subjects ranged in age from 13 to 16 years. Subjects included 44 rising eighth graders (24 females), 54 rising ninth graders (32 females), 32 rising tenth graders (16 females), and 18 rising 11th graders (10 females).

Instrumentation. Students completed two paper and pencil measures, including the Self Description Questionnaire-II (SDQ-II). The SDQ-II, used extensively with adolescents (e.g., Byrne & Shavelson, 1987; Marsh, Parker, & Barnes, 1985) is a 102-item instrument indicating levels of the following

dimensions of self-concept: Physical Abilities, Physical Appearance, Opposite-Sex Relations, Same-sex Relations, Parent Relations, Honesty/ trustworthiness, Emotional Stability, Math, Verbal, General School, and General Self. Each item is a statement which the student evaluates on a 5-point Likert-type scale (1 = false to 5 = true). Half the items are reverse-coded.

Procedure. Some subjects completed the SDQ-II in an afternoon Research session after class during the course of the summer term. Each student handed the instruments back to the investigators as he or she was finished. Other students received the SDQ-II during a section of class devoted to research participation. In this case, teachers or teaching assistants administered the SDQ-II to the students and collected the completed instruments. In all cases, subjects were asked not to provide their names.

Analysis

The transformed scale scores (i.e., T scores, with a mean of 50 and a standard deviation of 10) were analyzed to construct a "portrait" of these exceptionally talented students in terms of self concept, especially with regard to possible age or gender patterns (e.g., Byrne & Shavelson, 1987; Marsh, Parker, & Barnes, 1985). In addition to the examination of mean scale scores, frequency of scale scores were also studied to determine incidence of especially low or high scores on given scales.

Results

Age differences. Analyses indicated that none of the self-concept scales differed significantly with grade of the student ($F(3, 144) = 0.54$, n. s.).

Gender differences. However, several self-concept scales differed significantly by gender. Table 1 illustrates the mean self-concept T scores for

each dimension for males and females. Females rated their self concepts in Physical Appearance and General School significantly higher than males, and males rated their self concept in Honesty-trustworthiness higher than females.

Insert Table 1 about here

It is also important to note that the mean for each gender in almost every scale is above the norm provided in the instrument's documentation. TIP males and females rated only their self-concept in Physical Ability lower than the norm.

Interpretation of the high end of the SDQ scales is discouraged; only scores at the lower end of the scale are interpretable and meaningful (Marsh, 1990). Although we cannot further interpret most of the scale scores, it is notable that these students are functioning particularly well in terms of self-concept, except for the one domain which is lower than the norm.

Incidence of low scores. However, examination of the means exclusively for this group masks some information about individuals. Although the mean scores for these dimensions were notably high for males and females, some students did score below the mean on one or more dimensions. Marsh (1990) suggests that scoring below the 25th percentile on a given scale is worthy of attention. Figure 1 illustrates the percentage of students in each domain who scored below the 25th percentile on each scale.

Again, the domain of Physical Abilities comes to attention, with nearly

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Insert Figure 1 about here

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one-third of these students (31.8% of the male and 34.1% of the females) scoring below the 25th percentile on this scale. Two other scales--Emotional Stability and Opposite-Sex Relations-- also had relatively high rates of students scoring below the 25th percentile (i.e., approximately 20% of the males and females). Another interesting finding apparent in this Figure occurs within the scale for Parent Relations; 10.6% of the males fell below the 25 percentile on this scale, while over twice as many females scored this low (22%).

Discussion

These results can inform the further development and procedures of the Talent Identification Program Summer Residential Program. The information provided here is valuable in terms of understanding the functioning of talented adolescents in terms of self-concept within the context of an intensive summer program. Although at first glance, these very talented students appear to be functioning extremely well (i.e., most mean scores are above the mean), there are instances of students scoring below the mean for a given scale.

What do these findings mean for these talented students? What does this portrait tell us about the functioning and needs of this group? How can we identify the best ways to provide opportunities for growth? Most importantly, what are the implications of these processes in the design and implementation of interventions? The domain of perceptions of Physical

Ability is especially provocative, suggesting that perhaps these students hold negative stereotypical beliefs about their ability, such as the notion that highly intelligent children are unlikely to be athletic. It is necessary to consider the athletic/recreational options that are available for these students (e.g., ultimate frisbee tournaments) and the context of these activities (e.g., optional versus mandatory).

The relatively high incidence of low scores on Emotional Stability indicates that perhaps these students experience some amount of anxiety within the SRP. It is not possible to determine from these data whether these students exhibit anxiety as more of a trait characteristic or as a response to the situation at hand. Nevertheless, perhaps the participants in a program such as the SRP would benefit from interventions designed to help them alleviate symptoms of stress and anxiety. The younger of these students are probably just beginning to learn to respond to their own emotions, and it may be helpful for these students to provide them with tools necessary for the greater understanding of emotional functioning.

Some of these students also perceive themselves to be having difficulty with Parent Relations and Opposite-sex Relations, areas which are highly salient to the changing adolescent. Students such as this may benefit from the knowledge that these types of relationships change for all adolescents, that this is a normal process. Other possible measures, in addition to providing this information, may include workshops on communication skills and conflict resolution.

Much needs to be known about the functioning of very talented adolescents within the context of a rigorous residential program. Answers to

questions such as these are critical to the effectiveness of programs like the Duke University Talent Identification Program in serving this group of youngsters in the way most likely to further their academic, social, and emotional development.

References

Byrne, B. M., & Shavelson, R. J. (1987). Adolescent self-concept: Testing the assumption of equivalent structure across gender. American Educational Research Journal, 24, 365-385.

Hansen, J. B., & Hall, E. G. (1985). Self-concept gains by gifted middle school students during a summer program. Roeper Review, 7 (3), 170-171.

Hollinger, C. L. (1985). The stability of self perceptions of instrumental and expressive traits and social self esteem among gifted and talented female adolescents. Journal for the Education of the Gifted, 8, 107-126.

Janos, P. M., Jung, M. C., & Robinson, N. M. (1985). Self-concept, self-esteem, and peer relations among gifted children who feel "different." Gifted Child Quarterly, 29, 78-82.

Marsh, H. W. (1990). Self-Description Questionnaire II: Manual. New York: The Psychological Corporation.

Marsh, H. W., Parker, J., & Barnes, J. (1985). Multidimensional adolescent self-concepts: Their relationship to age, sex, and academic measures. American Educational Research Journal, 22, 422-444.

Marx, R. W., & Winne, P. H. (1978). Construct interpretations of three self-concept inventories. American Educational Research Journal, 15, 99-108.

Olszewski, P., Kulieke, M. J., & Willis, G. B. (1987). Changes in the self-perceptions of gifted students who participate in rigorous academic programs. Journal for the Education of the Gifted, 10, 287-303.

Author Notes

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Table 1

Transformed (T) Scale Scores and Percentile Scores on the SDQ-II

SDQ-II Scale	Females (n = 82)		Males (n = 66)	
	T score	Percentile	T score	Percentile
Physical Abilities	47.55	44.73	47.55	43.14
Physical Appearance*	55.75	67.16	52.71	57.2
Opposite-sex Relations	53.3	59.41	50.62	51.26
Same-sex Relations	53.8	63.61	55.03	65.38
Parent Relations	51.15	52.67	52.64	55.32
Honesty-Trustworthiness*	53.59	61.0	56.09	68.7
Emotional Stability	51.68	54.59	53.1	59.95
Math	61.51	82.41	61.35	83.77
Verbal	59.26	77.46	56.7	68.65
General School*	63.22	90.19	61.59	87.09
General Self	56.84	71.65	55.7	68.32

Note: T scores have a mean of 50 and a standard deviation of 10.

*$p < .05$

Figure 1

Percentage of SRP Students Scoring Below the 25%ile on SDQ-II Scales